Amendments To The Claims:

Please amend the claims as shown.

1 – 14 (canceled)

15. (new) A hollow-shaft rotor for a turbo-engine, comprising:

a first shaft section arranged coaxially with a rotational axis of the engine having a first end surface and formed from a plurality of abutting first section disks;

a second shaft section arranged coaxially and downstream of the first shaft section having a second end surface and formed from a plurality of abutting second section disks wherein the first and second end surfaces face each other; and

a third shaft section arranged coaxially with and between the first and second shaft sections wherein the third shaft section comprises

a plurality of ring segments having an I-shaped cross section with:

a web section extending in a radial direction having a radially outer end and a radially inner end,

an upper flange section extending from the radially outer end of the web in an axial direction toward both the first and second end surfaces, and

a lower flange section extending from the radially inner end of the web in the axial direction toward both the first and second end surfaces, wherein

a third shaft cavity formed between the radially inner and radially outer flanges where two or more adjacent ring segments join, and

a fourth cavity formed between an inner diameter surface of the lower flange section and the first and second end surfaces.

16. (new) The rotor as claimed in claim 15, wherein the first shaft section is a compressor section and the second shaft section is a turbine section.

17. (new) The rotor as claimed in claim 15, further comprising a tension bolt parallel to the rotational axis and extending through the plurality of first section disks, second section disks and ring segments.

18. (new) The rotor as claimed in claim 17, wherein the rotor further comprises a plurality of tension bolts that extend through the plurality of first section disks, second section disks and ring segments.

19. (new) The rotor as claimed in claim 18, wherein the plurality of tension bolts are spaced away from the rotational axis of the engine.

20. (new) The rotor as claimed in claim 19, wherein each section disk and ring segment comprises a Hirth-type toothing for the transmission of the rotor torque.

21. (new) The rotor as claimed in claim 20, wherein the third shaft cavity guides a cooling fluid.

22. (new) The rotor as claimed in claim 21, wherein a plurality of third shaft cavities are in flow communication with one another through passages located in each ring web section.

23. (new) The rotor as claimed in claim 22, wherein the cooling fluid is a compressed air extracted from a compressor of the engine.

24. (new) The rotor as claimed in claim 23, wherein the extracted compressed air is directed to the third shaft cavity which is then extracted in a region of a turbine stage.

25. (new) The rotor as claimed in claim 24, wherein the Hirth-type toothing is arranged on mating ends of the ring segments.

26. (new) The rotor as claimed in claim 25, wherein a plurality of labyrinth seals arranged between respective inner diameter surfaces of the first and second rotor sections and an outer surface of the tension bolt seal the fourth cavity.

27. (new) A combustion turbine engine, comprising:

a rotor mounted coaxially with a rotational axis of the engine having

a compressor shaft section arranged coaxially with the rotational axis of the engine and having a first end surface and formed from a plurality of abutting compressor disks;

a turbine shaft section arranged coaxially and downstream of the compressor shaft section having a second end surface and formed from a plurality of abutting turbine disks wherein the first and second end surfaces face each other; and

an intermediate shaft section arranged coaxially with and between the compressor and turbine shaft sections wherein the intermediate shaft section comprises

a plurality of ring shaped segments having an I-shaped cross section with:

a web section extending in the radial direction having a radially outer end and a radially inner end,

an upper flange section extending from the radially outer end of the web in the axial direction toward both the first and second end surfaces, and

a lower flange section extending from the radially inner end of the web in the axial direction toward both the first and second end surfaces wherein

an intermediate shaft cavity formed between the radially inner and radially outer flanges where two or more adjacent ring segments join, and

a fourth cavity formed between an inner diameter surface of the lower flange section and the first and second end surfaces;

an inlet that admits a working fluid;

a compressor that compresses the working fluid and surrounds the compressor shaft section;

a combustion section that receives the compressed working fluid and combusts a fuel to produce a hot working fluid; and

a turbine that expands the hot working fluid and surrounds the turbine shaft section.